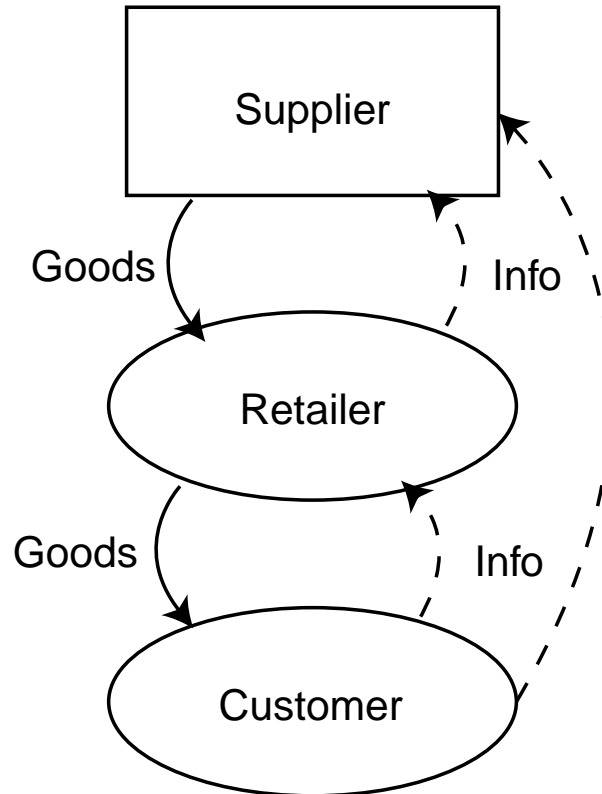
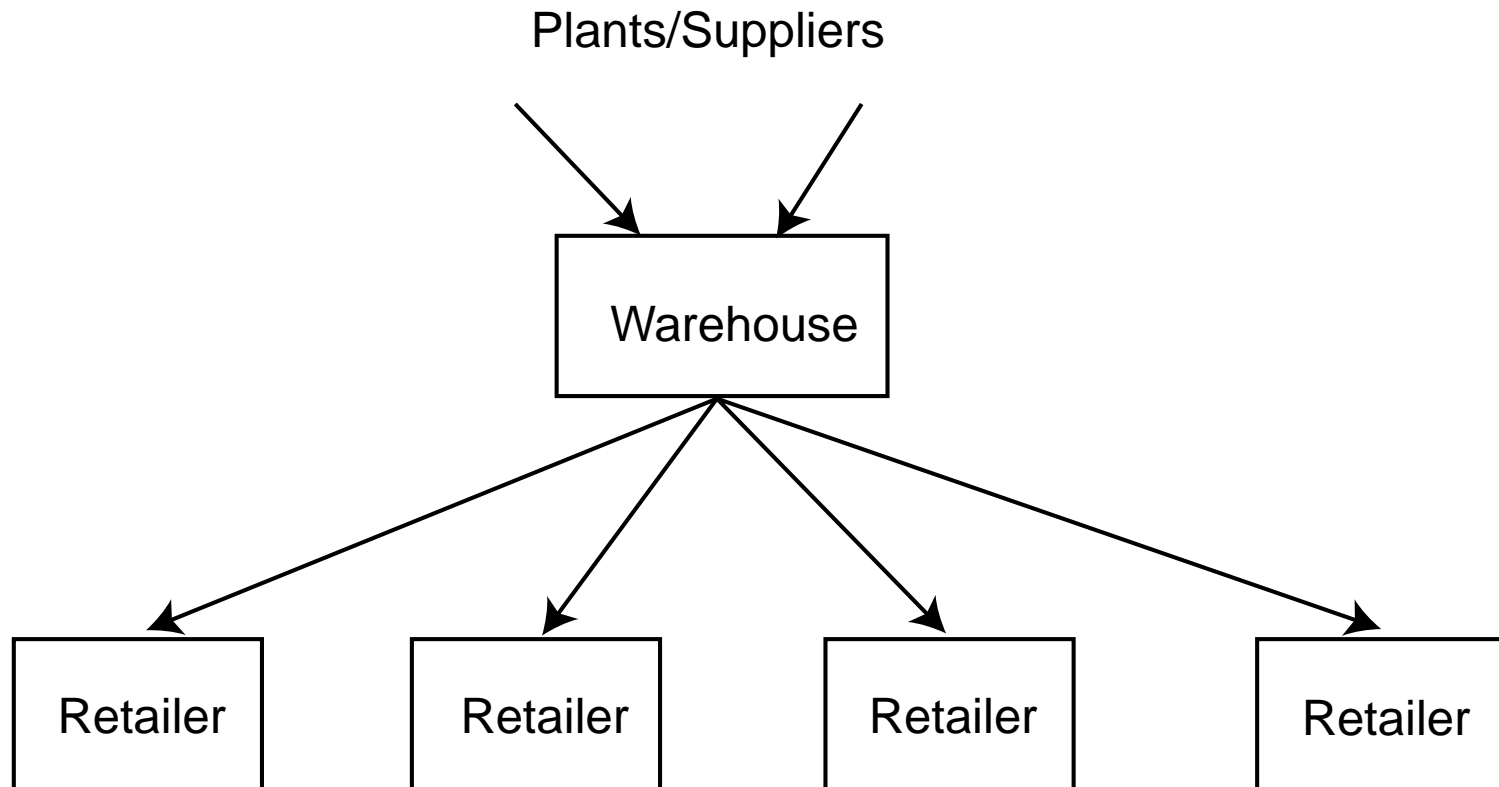


Crossdocking

A multi-echelon system



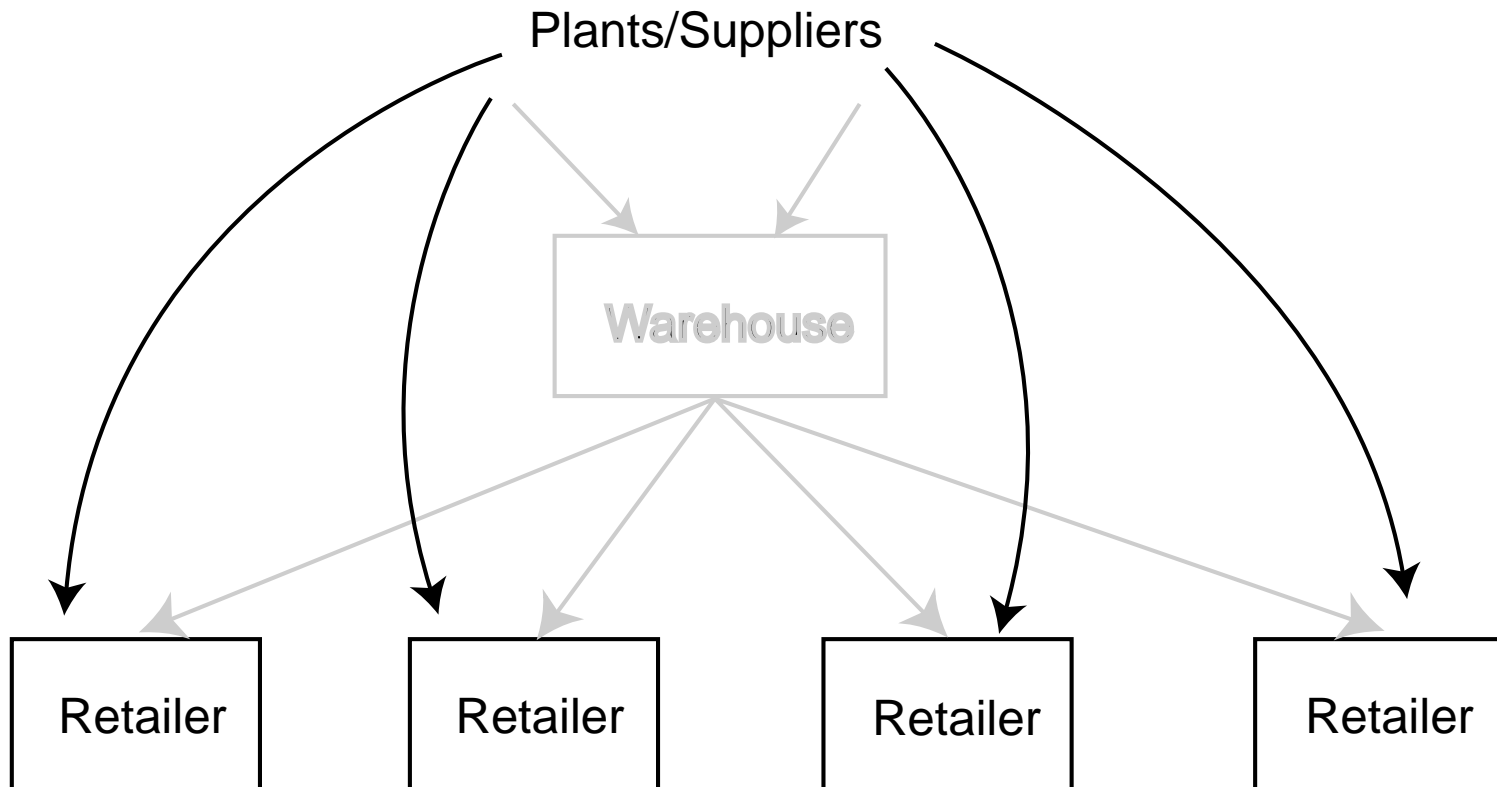
Distribution System Design



Different distribution structures

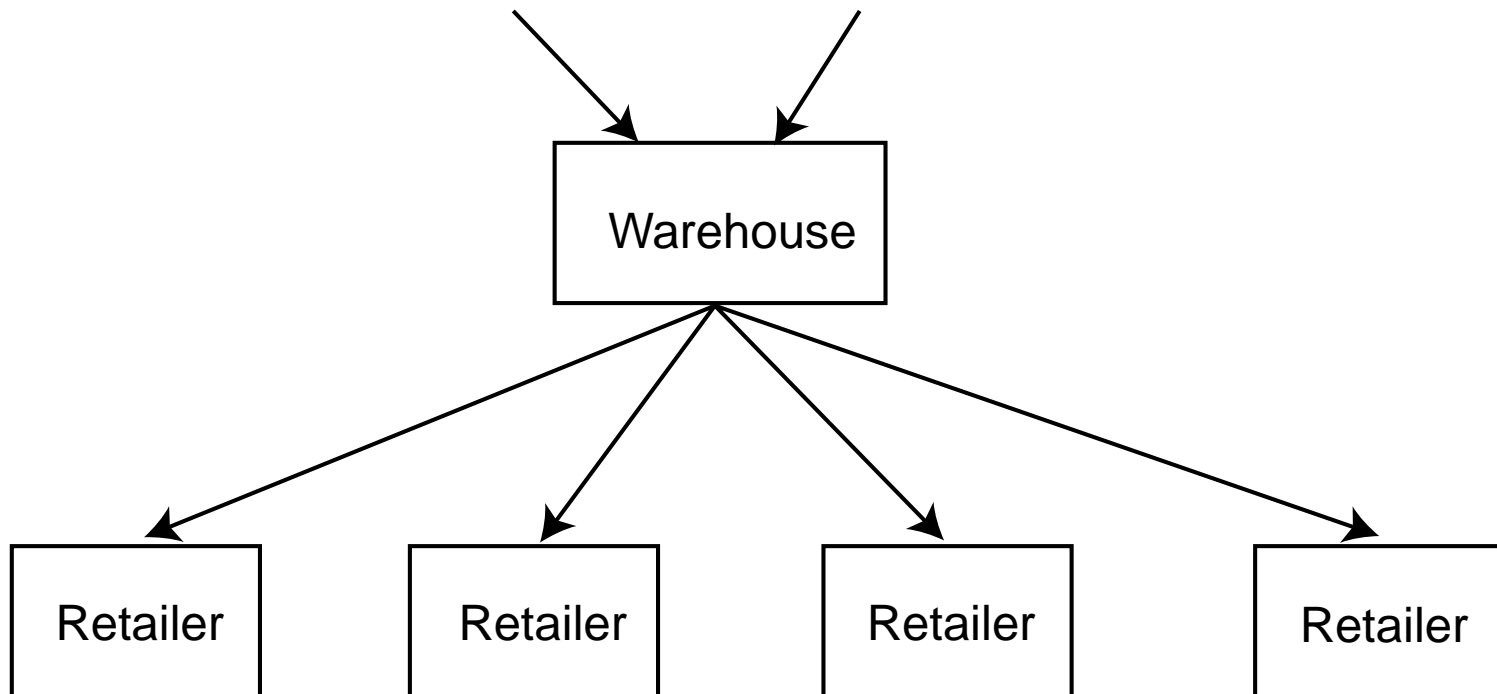
- Direct shipment
- Warehousing
- Crossdocking

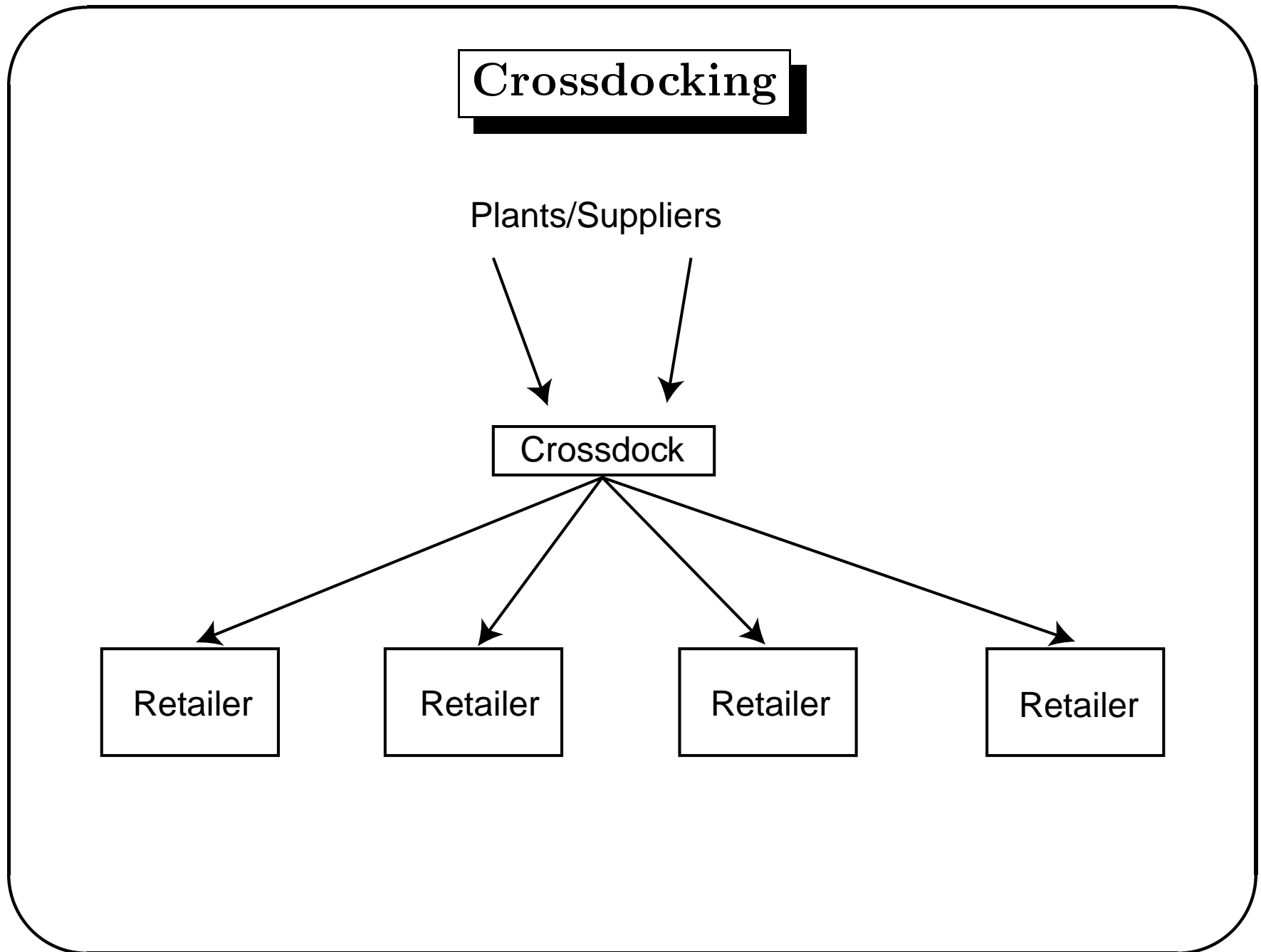
Direct shipment



Warehousing

Plants/Suppliers





Crossdocking is ...

moving products directly from inbound to outbound vehicle without storage in between.

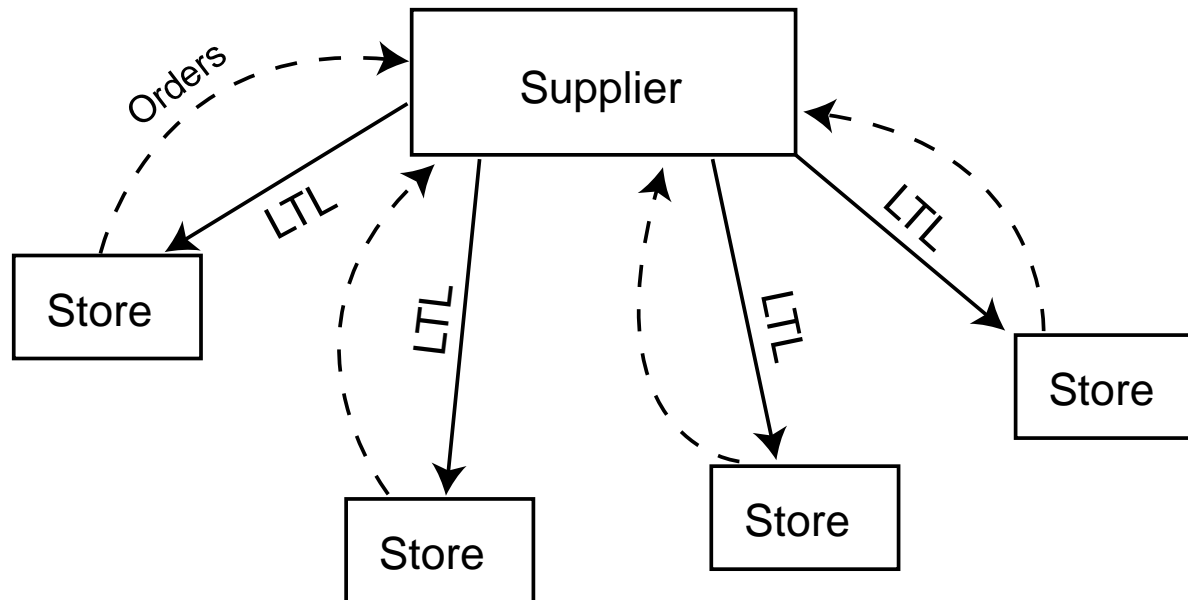
The main attractions

- Reduce inventory holding costs
- Reduce transportation costs

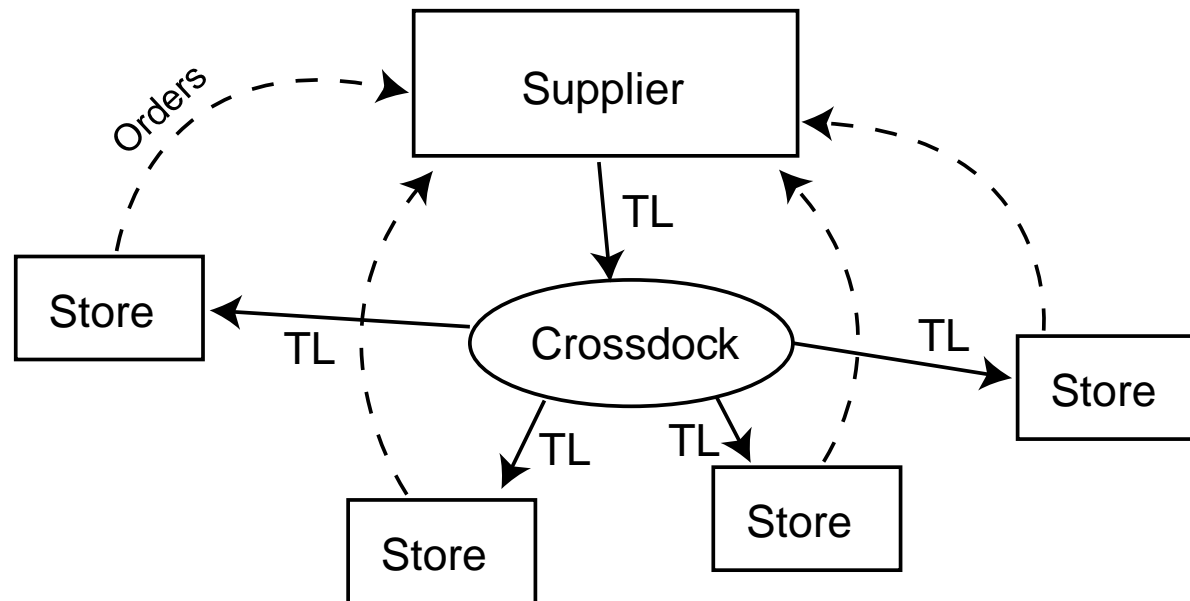
Wal-Mart

- **Staple stock** — items that customers expect to find in the same place in every Wal-Mart (toothpaste, shampoo, etc.).
 - These items are warehoused so there are no stockouts.
 - Pull based distribution
- **Direct ship** — items that Wal-Mart buyers have gotten a great deal on and are pushing out to stores.
 - These items are crossdocked; stores don't know what they're getting until the truck arrives!
 - Push-based distribution

Home Depot: the old system



Home Depot: the new system



The right products

- High demand
- Low variance
- Easy to handle

Other examples

- Computer firms consolidate CPU, monitor, and printer in *merge in transit* centers.
- LTL and package carriers (UPS, FedEx) crossdock to consolidate freight.
- JIT manufacturers crossdock inbound supplies in a nearby warehouse.